RAW SEQUENCE LISTING   DATE: 11/03/2000
PATENT APPLICATION: US/09/245,603A   TIME: 15:41:24

Input Set : A:\PTO.txt
Output Set: N:\CRF3\11032000\I245603A.raw

```
      3 <110> APPLICANT: Curiel, David T.
      4         Krasnykh, Victor N.
      5         Dmitriev, Igor
      7 <120> TITLE OF INVENTION: Adenovirus Vector Containing A Heterologous Peptide
      8         Epitope in the HI Loop of the Fiber Knob
W--> 9 <130> FILE REFERENCE: D6080
W--> 10 <140> CURRENT APPLICATION NUMBER: 09/245,603A
     11 <141> CURRENT FILING DATE: 1999-02-05
     12 <150> PRIOR APPLICATION NUMBER: US 60/099,801
     14 <151> PRIOR FILING DATE: 1998-09-10
W--> 16 <160> NUMBER OF SEQ ID: 17
     18 <210> SEQ ID NO: 1
     19 <211> LENGTH: 38
     20 <212> TYPE: DNA
     21 <213> ORGANISM: artificial sequence
W--> 22 <220> FEATURE:
     23 <221> NAME/KEY: primer_bind
     24 <223> OTHER INFORMATION: Forward primer F1 used to generate a gene encoding
     25         the Ad5 fiber knob domain with the HI loop deleted.
W--> 26 <400> SEQUENCE: 1
     27 taaggatccg gtgccattac agtaggaaac aaaaataa       38
     29 <210> SEQ ID NO: 2
     30 <211> LENGTH: 43
     31 <212> TYPE: DNA
     32 <213> ORGANISM: artificial sequence
W--> 33 <220> FEATURE:
     34 <221> NAME/KEY: primer_bind
     35 <223> OTHER INFORMATION: Reverse primer R1 used to generate a gene encoding
     36         the Ad5 fiber knob domain with the HI loop deleted.
W--> 37 <400> SEQUENCE: 2
     38 catagagtat gcagatatcg ttagtgttac aggtttagtt ttg       43
     40 <210> SEQ ID NO: 3
     41 <211> LENGTH: 42
     42 <212> TYPE: DNA
     43 <213> ORGANISM: artificial sequence
W--> 44 <220> FEATURE:
     45 <221> NAME/KEY: primer_bind
     46 <223> OTHER INFORMATION: Forward primer F2 used to generate a gene encoding
     47         the Ad5 fiber knob domain with the HI loop deleted.
W--> 48 <400> SEQUENCE: 3
     49 gtaacactaa cgatatctgc atactctatg tcattttcat gg       42
     51 <210> SEQ ID NO: 4
     52 <211> LENGTH: 41
     53 <212> TYPE: DNA
     54 <213> ORGANISM: artificial sequence
W--> 55 <220> FEATURE:
     56 <221> NAME/KEY: primer_bind
```

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```
    57 <223> OTHER INFORMATION: Reverse primer R2 used to generate a gene encoding
    58       the Ad5 fiber knob domain with the HI loop deleted.
W--> 59 <400> SEQUENCE: 4
    60 cccaagctta caattgaaaa ataaacacgt tgaaacataa c       41
    62 <210> SEQ ID NO: 5
    63 <211> LENGTH: 63
    64 <212> TYPE: DNA
    65 <213> ORGANISM: artificial sequence
W--> 66 <220> FEATURE:
    67 <223> OTHER INFORMATION: Oligonucleotide annealed with SEQ ID NO: 6 to form a
    68       duplex and cloned into EcoRV-digested pQE.KNOBDHI.
W--> 69 <400> SEQUENCE: 5
    70 tacactaaac ggtacccagg aaacaggaga cacaactgac tacaaggacg acgatgacaa   60
    71 gcc                                                                63
    73 <210> SEQ ID NO: 6
    74 <211> LENGTH: 63
    75 <212> TYPE: DNA
    76 <213> ORGANISM: artificial sequence
W--> 77 <220> FEATURE:
    78 <223> OTHER INFORMATION: Oligonucleotide annealed with SEQ ID NO: 5 to form a
    79       duplex and cloned into EcoRV-digested pQE.KNOBDHI.
W--> 80 <400> SEQUENCE: 6
    81 ggcttgtcat cgtcgtcctt gtagtcagtt gtgtctcctg tttcctgggt accgtttagt   60
    82 gta                                                                63
    84 <210> SEQ ID NO: 7
    85 <211> LENGTH: 29
    86 <212> TYPE: DNA
    87 <213> ORGANISM: artificial sequence
W--> 88 <220> FEATURE:
    89 <223> OTHER INFORMATION: Oligonucleotide used in synthetic duplex which
    90       encodes MetHis6Lys.
W--> 91 <400> SEQUENCE: 7
    92 gatccatgca tcaccatcac catcacaag        29
    94 <210> SEQ ID NO: 8
    95 <211> LENGTH: 29
    96 <212> TYPE: DNA
    97 <213> ORGANISM: artificial sequence
W--> 98 <220> FEATURE:
    99 <223> OTHER INFORMATION: Oligonucleotide used in synthetic duplex which
   100       encodes MetHis6Lys.
W--> 101 <400> SEQUENCE: 8
   102 cgcgcttgtg atggtgatgg tgatgcatg        29
   104 <210> SEQ ID NO: 9
   105 <211> LENGTH: 16
   106 <212> TYPE: DNA
   107 <213> ORGANISM: artificial sequence
W--> 108 <220> FEATURE:
   109 <223> OTHER INFORMATION: An NdeI-SwaI linker ligated to plasmid pTG3602 after
   110       partial digestion of the plasmid with NdeI.
```

```
W--> 111 <400> SEQUENCE: 9
    112 tacccatttta aatggg                        16
    114 <210> SEQ ID NO: 10
    115 <211> LENGTH: 66
    116 <212> TYPE: DNA
    117 <213> ORGANISM: artificial sequence
W--> 118 <220> FEATURE:
    119 <223> OTHER INFORMATION: Oligonucleotide in duplex cloned into EcoRV site
    120      of plasmid pQE.KNOBDHI generating pQE.KNOB.RGDHI.
W--> 121 <400> SEQUENCE: 10
    122 cacactaaac ggtacacagg aaacaggaga cacaacttgt gactgccgcg gagactgttt  60
    123 ctgccc                                                          66
    125 <210> SEQ ID NO: 11
    126 <211> LENGTH: 66
    127 <212> TYPE: DNA
    128 <213> ORGANISM: artificial sequence
W--> 129 <220> FEATURE:
    130 <221> NAME/KEY: primer_bind
    131 <223> OTHER INFORMATION: Oligonucleotide in duplex cloned into EcoRV site
    132      of plasmid pQE.KNOBDHI generating pQE.KNOB.RGDHI.
W--> 133 <400> SEQUENCE: 11
    134 gggcagaaac agtctccgcg gcagtcacaa gttgtgtctc ctgtttcctg tgtaccgttt  60
    135 agtgtg                                                          66
    137 <210> SEQ ID NO: 12
    138 <211> LENGTH: 41
    139 <212> TYPE: DNA
    140 <213> ORGANISM: artificial sequence
W--> 141 <220> FEATURE:
    142 <223> OTHER INFORMATION: Oligonucleotide in synthetic duplex used to
    143      replace 41 bp PacI-ClaI-fragment in pcDNA.Luc,
    144      generating pcLucPC1.
W--> 145 <400> SEQUENCE: 12
    146 caaatacaaa ggatatcagg tggcccccgc tgaattggag t                    41
    148 <210> SEQ ID NO: 13
    149 <211> LENGTH: 45
    150 <212> TYPE: DNA
    151 <213> ORGANISM: artificial sequence
W--> 152 <220> FEATURE:
    153 <223> OTHER INFORMATION: Oligonucleotide in synthetic duplex used to
    154      replace 41 bp PacI-ClaI-fragment in pcDNA.Luc,
    155      generating pcLucPC1.
W--> 156 <400> SEQUENCE: 13
    157 cgactccaat tcagcggggg ccacctgata tcctttgtat ttgat              45
    159 <210> SEQ ID NO: 14
    160 <211> LENGTH: 13
    161 <212> TYPE: PRT
    162 <213> ORGANISM: artificial sequence
W--> 163 <220> FEATURE:
    164 <223> OTHER INFORMATION: Amino acid sequence deleted from the HI loop of
```

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```
      165        the fiber knob domain and replaced with a
      166        unique EcoRV site.
W--> 167 <400> SEQUENCE: 14
      168 Thr Leu Asn Gly Thr Gln Glu Thr Gly Asp Thr Thr Pro
      169              5                  10
      171 <210> SEQ ID NO: 15
      172 <211> LENGTH: 8
      173 <212> TYPE: PRT
      174 <213> ORGANISM: artificial sequence
W--> 175 <220> FEATURE:
      176 <223> OTHER INFORMATION: Amino acid sequence of the FLAG octapeptide.
W--> 177 <400> SEQUENCE: 15
      178 Asp Tyr Lys Asp Asp Asp Asp Lys
      179              5
      181 <210> SEQ ID NO: 16
      182 <211> LENGTH: 9
      183 <212> TYPE: PRT
      184 <213> ORGANISM: artificial sequence
W--> 185 <220> FEATURE:
      186 <223> OTHER INFORMATION: Amino acid sequence of a RGD peptide incorporated
      187        into the region of the fiber gene within the HI loop.
W--> 188 <400> SEQUENCE: 16
      189 Cys Asp Cys Arg Gly Asp Cys Phe Cys
      190              5
      192 <210> SEQ ID NO: 17
      193 <211> LENGTH: 13
      194 <212> TYPE: PRT
      195 <213> ORGANISM: artificial sequence
W--> 196 <220> FEATURE:
      197 <223> OTHER INFORMATION: Amino acid sequence of peptide replacing the
      198        RGD coding sequence.
W--> 199 <400> SEQUENCE: 17
      200 Thr Leu Asn Gly Thr Gln Glu Thr Gly Asp Thr Thr Pro
      201              5                  10
```

VERIFICATION SUMMARY   DATE: 11/03/2000
PATENT APPLICATION: US/09/245,603A   TIME: 15:41:25

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF3\11032000\I245603A.raw**

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L:10 M:283 W: Missing Blank Line separator, <140> field identifier
L:16 M:283 W: Missing Blank Line separator, <160> field identifier
L:22 M:283 W: Missing Blank Line separator, <220> field identifier
L:26 M:283 W: Missing Blank Line separator, <400> field identifier
L:33 M:283 W: Missing Blank Line separator, <220> field identifier
L:37 M:283 W: Missing Blank Line separator, <400> field identifier
L:44 M:283 W: Missing Blank Line separator, <220> field identifier
L:48 M:283 W: Missing Blank Line separator, <400> field identifier
L:55 M:283 W: Missing Blank Line separator, <220> field identifier
L:59 M:283 W: Missing Blank Line separator, <400> field identifier
L:66 M:283 W: Missing Blank Line separator, <220> field identifier
L:69 M:283 W: Missing Blank Line separator, <400> field identifier
L:77 M:283 W: Missing Blank Line separator, <220> field identifier
L:80 M:283 W: Missing Blank Line separator, <400> field identifier
L:88 M:283 W: Missing Blank Line separator, <220> field identifier
L:91 M:283 W: Missing Blank Line separator, <400> field identifier
L:98 M:283 W: Missing Blank Line separator, <220> field identifier
L:101 M:283 W: Missing Blank Line separator, <400> field identifier
L:108 M:283 W: Missing Blank Line separator, <220> field identifier
L:111 M:283 W: Missing Blank Line separator, <400> field identifier
L:118 M:283 W: Missing Blank Line separator, <220> field identifier
L:121 M:283 W: Missing Blank Line separator, <400> field identifier
L:129 M:283 W: Missing Blank Line separator, <220> field identifier
L:133 M:283 W: Missing Blank Line separator, <400> field identifier
L:141 M:283 W: Missing Blank Line separator, <220> field identifier
L:145 M:283 W: Missing Blank Line separator, <400> field identifier
L:152 M:283 W: Missing Blank Line separator, <220> field identifier
L:156 M:283 W: Missing Blank Line separator, <400> field identifier
L:163 M:283 W: Missing Blank Line separator, <220> field identifier
L:167 M:283 W: Missing Blank Line separator, <400> field identifier
L:175 M:283 W: Missing Blank Line separator, <220> field identifier
L:177 M:283 W: Missing Blank Line separator, <400> field identifier
L:185 M:283 W: Missing Blank Line separator, <220> field identifier
L:188 M:283 W: Missing Blank Line separator, <400> field identifier
L:196 M:283 W: Missing Blank Line separator, <220> field identifier
L:199 M:283 W: Missing Blank Line separator, <400> field identifier
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